

## Flood Risk Management Assessment and Planning

Understanding where and how fast flood waters travel is fundamental for a well-informed, targeted, floodplain management plan. Without this information, flood mitigation measures, such as, structural engineering works, property modifications, land use controls, community education programmes, emergency response plans and flood insurance, cannot be confidently evaluated and implemented.

The accuracy of this information, which is primarily from computer flood models, has a direct impact on the bottom-line cost and success rate of flood mitigation measures. TUFLOW, being the world's most accurate flood modelling software, allows flood risk management plans to be formulated with greater certainty.

The TUFLOW software suite has been developed and evolved over three decades. Our extensively benchmarked software offers industry-leading accuracy, computational speed, numerical stability, and functionalities to model the most challenging hydraulic conditions and flood risk mitigation options in the natural and built environments.

Enable your team to effectively tackle the most complex flood risk management problems with TUFLOW.

As researchers, scientists and engineers we work in a range of industries that solve complex environmental problems. Our assessments span scales from the molecular to global, from the instantaneous to the inter-decadal. Our projects require flexible, accurate, fast and powerful tools backed up by research, benchmarking and support.

## Feature Rich Flood Risk Management Toolkit

## **TUFLOW Feature Focus**

- Powerful multiple scenario and event management options makes for easy ensemble modelling to obtain a clear understanding of the risk profile.
- Test structural mitigation options using TUFLOW's data layering and in-built topography modification features. Make model topography changes without duplication of data or the need to create surfaces in external software.
- Import structural mitigation designs into TUFLOW from external design software (12D, CAD, Civil 3D).
- Dozens of in-built industry hazard category outputs, translating flood depth and velocity to risk for different target populations.
- Numerous flood evacuation assessment features. Understand where, when and how properties, evacuation routes and shelters are affected by flooding and how it relates to real-time local gauge information.
- Access flood planning level mapping add-ons to easily translate flood model results into functional planning datasets.
- Model with GPU acceleration to achieve speeds required for real-time flood warning.











waterRIDE



TUFLOW has unrivalled scalability. Model everything from lot scale scenarios to whole of catchment situations. Models larger than 10,000,000 2D cells are commonplace using TUFLOW with the GPU Acceleration Module. Ease of accessibility to this level of computing power is revolutionising the flood modelling industry globally.

TUFLOW is uniquely integrated with GIS and GUI software such as ArcGIS, QGIS, MapInfo, 12D, SMS, and Flood Modeller. The flexibility of the user environment facilitates operational freedom and customisation of highly efficient workflow practices.

Similarly, TUFLOW supports a wide range of industry standard open output formats. Subsequently, TUFLOW results are easily integrated with external flood risk assessment software, such as agentbased evacuation simulation software, flood damage calculation toolkits, and more broadly, Flood Risk Manager packages such as WaterRide and Delft-FEWS. TUFLOW's open output format has the added benefit that planners and managers without prior knowledge of TUFLOW can use TUFLOW results directly within their own software of choice without the need for a TUFLOW licence. No other software offers this level of flexibility.

TUFLOW has been tailormade to bridge the gap between flood modelling and floodplain risk management with an unparalleled range of practical features and tools to assist with the technical and decision-making stages of assessing flood risk management options. Also available are useful tools to help translate modelling results into formats and media for facilitating meaningful stakeholder involvement.

Choose TUFLOW as the flood modelling software for your next flood risk management project.

For more information: info@tuflow.com www.tuflow.com

